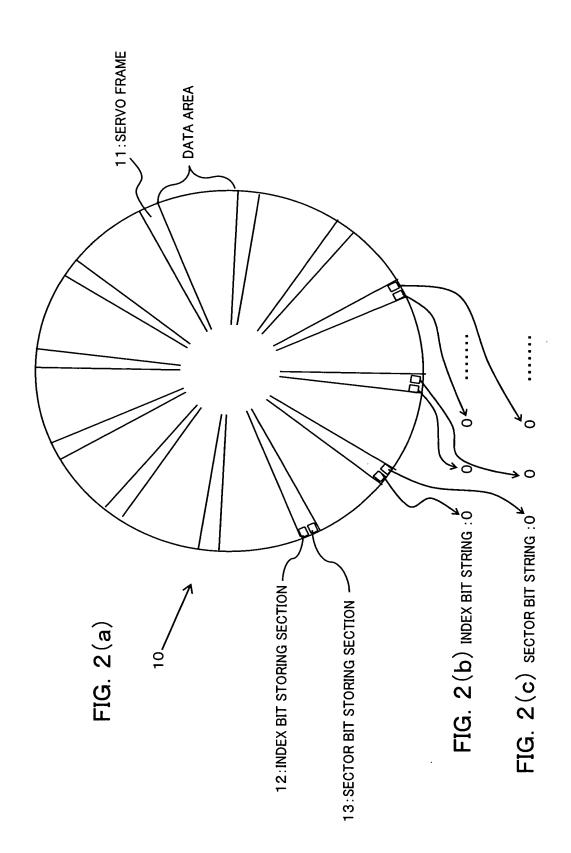


FIG. 1



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FIG. 3

| INDEX PATTERN NO. | INDEX PATTERN |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11                | 0             | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| 2                 | 0             | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| 3                 | 0             | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| 4                 | 0             | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 5                 | 0             | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| 6                 | 0             | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| 7                 | 0             | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 8                 | 0             | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |

| 5 | 1 |
|---|---|
| ( | 5 |
| Ĺ | Ī |

| SF15 | SF33 | SF51 | SF69 | SF86 | SF99 SF100 SF101 SF102 SF103 | SF105 SF106 SF107 SF108 SF109 SF1110 SF1112 SF113 SF114 SF115 SF116 SF117 SF118 SF119 SF120 | -125SF126SF127SF128SF129SF130SF131SF132SF133SF134SF135SF136SF137 | =142 SF143 SF144 SF145 SF146 SF147 SF148 SF149 SF150 SF151 SF152 SF153 SF154 | 0 |
|------|------|------|------|------|------------------------------|---|--|--|---|
| SF14 | SF32 | SF50 | SF68 | SF85 | SF102                        | SF119   | SF136  | SF153  | 0 |
| SF13 | SF31 | SF49 | SF67 | SF84 | SF101                        | SF118   | SF135  | SF152  | 0 |
| SF12 | SF30 | SF48 | SF66 | SF83 | SF100                        | SF117   | SF134  | SF151  | 1 |
| SF11 | SF29 | SF47 | SF65 | SF82 | SF99                         | SF116   | SF133  | SF150  | 1 |
| SF10 | SF28 | SF46 | SF64 | SF81 | SF98                         | SF115   | SF132  | SF149  | 1 |
| SF9  | SF27 | SF45 | SF63 | SF80 | SF97                         | SF114   | SF131  | SF148  | 0 |
| SF8  | SF26 | SF44 | SF62 | SF79 | SF96                         | SF113   | SF130  | SF147  | 1 |
| SF7  | SF25 | SF43 | SF61 | SF78 | SF95                         | SF112   | SF129  | SF146  | 1 |
| SF6  | SF24 | SF42 | SF60 | SF77 | SF94                         | SF111   | SF128  | SF145  | 0 |
| SF5  | SF23 | SF41 | SF59 | SF76 | SF93                         | SF110   | SF127  | SF144  | 1 |
| SF4  | SF22 | SF40 | SF58 | SF75 | SF92                         | SF109   | SF126  | SF143  | 0 |
| SF3  | SF21 | SF39 | SF57 | SF74 | SF91                         | SF108   |  |  | 0 |
| SF2  | SF20 | SF38 | SF56 | SF73 | SF90                         | SF107   | SF124  | SF141  | 0 |
| SF1  | SF19 | SF37 | SF55 | SF72 | SF89                         | SF106   | SF122 SF123 SF124 SI   | SF139 SF140 SF141 SI   | 0 |
| SFO  | SF18 | SF36 | SF54 | SF71 | SF88                         | SF105   | SF122  | SF139  | 0 |

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## FIG. 5

|                 | 1 | 2 | 3 | 4 | 5_ | 6_ | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | <u>16</u> | HAMMING<br>DISTANCE |
|-----------------|---|---|---|---|----|----|---|---|---|----|----|----|----|----|----|-----------|---------------------|
| INDEX PATTERN 1 | 0 | 0 | 0 | 0 | 0  | 1  | 0 | 1 | 1 | 0  | 1  | 1  | 1  | 0  | 0  | 0         |                     |
| 1-LINE SHIFT    | 0 | 0 | 0 | 0 | 0  | 0  | 1 | 0 | 1 | 1  | 0  | 1  | 1  | 1  | 0  | 0         | 6                   |
| 2-LINE SHIFT    | 0 | 0 | 0 | 0 | 0  | 0  | 0 | 1 | 0 | 1  | 1  | 0  | 1  | 1  | 1  | 0         | 6                   |
| 3-LINE SHIFT    | 0 | 0 | 0 | 0 | 0  | 0  | 0 | 0 | 1 | 0  | 1  | 1  | 0  | 1  | 1  | 1         | 6                   |
| 4-LINE SHIFT    | 1 | 0 | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 1  | 0  | 1  | 1  | 0  | 1  | 1         | 8                   |
| 5-LINE SHIFT    | 1 | 1 | 0 | 0 | 0  | 0  | 0 | 0 | 0 | 0  | 1  | 0  | 1  | 1  | 0  | 1         | 8                   |
| 6-LINE SHIFT    | 1 | 1 | 1 | 0 | 0  | 0  | 0 | 0 | 0 | 0  | 0  | 1  | 0  | 1  | 1  | 0         | 10                  |
| 7-LINE SHIFT    | 0 | 1 | 1 | 1 | 0  | 0  | 0 | 0 | 0 | 0  | 0  | 0  | 1  | 0  | 1  | 1         | 10                  |
| 8-LINE SHIFT    | 1 | 0 | 1 | 1 | 1  | 0  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 1  | 0  | 1         | 12                  |
| 9-LINE SHIFT    | 1 | 1 | 0 | 1 | 1  | 1  | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 1  | 0         | 10                  |
| 10-LINE SHIFT   | 0 | 1 | 1 | 0 | 1  | 1  | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 1         | 10                  |
| 11-LINE SHIFT   | 1 | 0 | 1 | 1 | 0  | 1  | 1 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0         | 8                   |
| 12-LINE SHIFT   | 0 | 1 | 0 | 1 | 1  | 0  | 1 | 1 | 1 | 0  | 0  | 0  | 0  | 0  | 0  | 0         | 8                   |
| 13-LINE SHIFT   | 0 | 0 | 1 | 0 | 1  | 1  | 0 | 1 | 1 | 1  | 0  | 0  | 0  | 0  | 0  | 0         | 6                   |
| 14-LINE SHIFT   | 0 | 0 | 0 | 1 | 0  | 1  | 1 | 0 | 1 | 1  | 1  | 0  | 0  | 0  | 0  | 0         | 6                   |
| 15-LINE SHIFT   | 0 | 0 | 0 | 0 | 1  | 0  | 1 | 1 | 0 | 1  | 1  | 1  | 0  | 0  | 0  | 0         | 6                   |

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FIG. 6

| N<br>N | 1  | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------|----|---|---|---|---|---|---|---|
| 1      | 6  | 4 | 4 | 4 | 4 | 5 | 5 | 5 |
| 2      | 4  | 6 | 5 | 4 | 5 | 4 | 4 | 4 |
| 3      | 4  | 5 | 6 | 4 | 4 | 4 | 5 | 5 |
| 4      | 4  | 5 | 4 | 6 | 4 | 4 | 5 | 5 |
| 5      | 4  | 4 | 4 | 4 | 6 | 4 | 4 | 5 |
| 6      | ٠4 | 4 | 4 | 4 | 5 | 6 | 4 | 4 |
| 7      | 4  | 4 | 4 | 4 | 4 | 4 | 6 | 4 |
| 8      | 4  | 4 | 4 | 4 | 4 | 4 | 4 | 6 |

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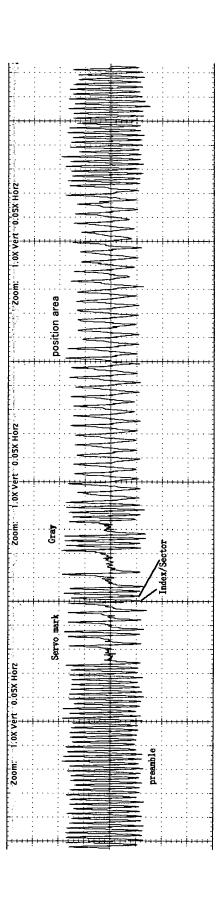
## FIG. 7

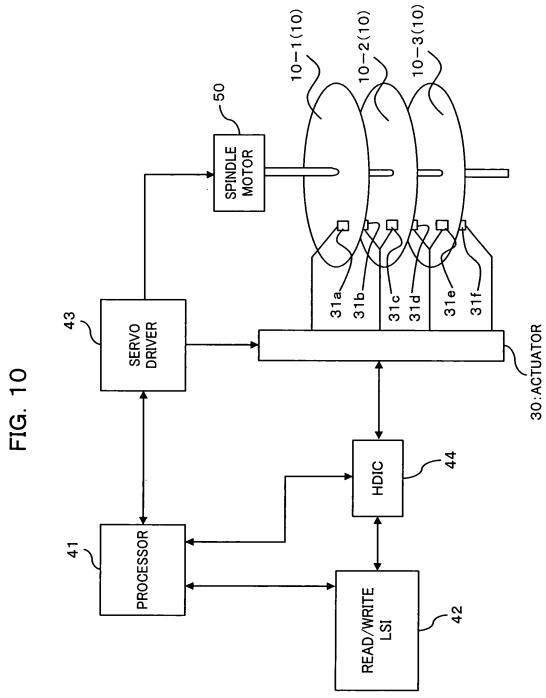
| SECTOR PATTERN 1 00001111111100001 SECTOR PATTERN 2 0111111110000010 SECTOR PATTERN 3 01110000111000101 SECTOR PATTERN 4 1011110011001001 SECTOR PATTERN 5 1011001100100101 SECTOR PATTERN 6 11000011110001101 SECTOR PATTERN 7 1100110000100111 SECTOR PATTERN 8 1101101010101000 SECTOR PATTERN 9 11010101010101010 SECTOR PATTERN 10 1010010110101010 SECTOR PATTERN 11 1010101001001011 SECTOR PATTERN 12 011001100110110 SECTOR PATTERN 13 011010011001101 SECTOR PATTERN 14 00011001101110 SECTOR PATTERN 15 000101101001111 SECTOR PATTERN 16 11101001011110000 SECTOR PATTERN 17 111001101001001 SECTOR PATTERN 18 1001011011010001 SECTOR PATTERN 19 1001100110110100 SECTOR PATTERN 19 1001100110110100 SECTOR PATTERN 20 010101011011010 SECTOR PATTERN 21 010110101010111 SECTOR PATTERN 22 0010101011011010 SECTOR PATTERN 23 0010010101101101 SECTOR PATTERN 24 001100111011010 SECTOR PATTERN 25 0011110000111011 SECTOR PATTERN 26 010011001101101 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 1000111100011100 SECTOR PATTERN 29 10000000111111 SECTOR PATTERN 29 10000000111111   |                   |                  |
|--|-------------------|------------------|
| SECTOR PATTERN 3 0111000011100011 SECTOR PATTERN 4 101111001100100 SECTOR PATTERN 5 10110011100100101 SECTOR PATTERN 6 1100001111000110 SECTOR PATTERN 7 1100110000100111 SECTOR PATTERN 8 1101101010101000 SECTOR PATTERN 9 110101010101010 SECTOR PATTERN 10 1010010110101010 SECTOR PATTERN 11 1010101001001011 SECTOR PATTERN 12 0110011001101100 SECTOR PATTERN 13 011010011001101 SECTOR PATTERN 14 000110010101110 SECTOR PATTERN 15 000101101001111 SECTOR PATTERN 16 11101001011110 SECTOR PATTERN 17 111001101010001 SECTOR PATTERN 18 1001011001101001 SECTOR PATTERN 19 100110011011010 SECTOR PATTERN 20 010101011011010 SECTOR PATTERN 21 01011010110101 SECTOR PATTERN 22 001010101101101 SECTOR PATTERN 23 001001010110110 SECTOR PATTERN 24 001100111011010 SECTOR PATTERN 25 0011110000111011 SECTOR PATTERN 26 010011001101101 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 1000111100011101 SECTOR PATTERN 29 10000000111110100 SECTOR PATTERN 29 100000001111101100 SECTOR PATTERN 29 100000001111101100 SECTOR PATTERN 29 100000000111110100 SECTOR PATTERN 30 11111000000011110   | SECTOR PATTERN 1  | 0000111111100001 |
| SECTOR PATTERN 4 1011110011000100 SECTOR PATTERN 5 1011001100100101 SECTOR PATTERN 6 11000011111000110 SECTOR PATTERN 7 1100110000100111 SECTOR PATTERN 8 1101101010101000 SECTOR PATTERN 9 110101010101010 SECTOR PATTERN 10 1010010110101010 SECTOR PATTERN 11 1010101001001011 SECTOR PATTERN 12 0110011001101100 SECTOR PATTERN 13 011010011001101 SECTOR PATTERN 14 00011001010111 SECTOR PATTERN 15 0001011010001111 SECTOR PATTERN 16 11101001011110000 SECTOR PATTERN 17 111001101010001 SECTOR PATTERN 18 100101100110010 SECTOR PATTERN 19 1001100110110100 SECTOR PATTERN 20 010101011011010 SECTOR PATTERN 21 010110101010111 SECTOR PATTERN 22 0010101010110110 SECTOR PATTERN 23 001001010101111 SECTOR PATTERN 24 001100111011010 SECTOR PATTERN 25 0011110000111011 SECTOR PATTERN 26 01001100111011 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 100011110011100 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 29 1000000011111011 SECTOR PATTERN 29 100000001111011   | SECTOR PATTERN 2  | 0111111100000010 |
| SECTOR PATTERN 5         1011001100100101           SECTOR PATTERN 6         1100001111000110           SECTOR PATTERN 7         1100110000100111           SECTOR PATTERN 8         1101101010101000           SECTOR PATTERN 9         110101010101001001           SECTOR PATTERN 10         101001011011010100           SECTOR PATTERN 11         1010011001100101101           SECTOR PATTERN 12         011001100110011010           SECTOR PATTERN 13         01101001100110101           SECTOR PATTERN 14         00011001010110110           SECTOR PATTERN 15         000101101001111000           SECTOR PATTERN 16         111010010101010001           SECTOR PATTERN 17         11100110010100101           SECTOR PATTERN 18         100101100110010101           SECTOR PATTERN 20         010101010101010101           SECTOR PATTERN 21         010101010101010101           SECTOR PATTERN 22         00101010101010101           SECTOR PATTERN 23         001001010101010101           SECTOR PATTERN 24         001100110011011010           SECTOR PATTERN 25         0011110000111001           SECTOR PATTERN 27         0100001100111011           SECTOR PATTERN 28         100011100111010           SECTOR PATTERN 30         11110000000011110 <td>SECTOR PATTERN 3</td> <td>0111000011100011</td> | SECTOR PATTERN 3  | 0111000011100011 |
| SECTOR PATTERN 6 1100001111000110 SECTOR PATTERN 7 1100110000100111 SECTOR PATTERN 8 1101101010101000 SECTOR PATTERN 9 110101010101010 SECTOR PATTERN 10 1010010110101010 SECTOR PATTERN 11 101011001001011 SECTOR PATTERN 12 0110011001101100 SECTOR PATTERN 13 011010011001101 SECTOR PATTERN 14 000110010110110 SECTOR PATTERN 15 000101101001111 SECTOR PATTERN 16 111010010111000 SECTOR PATTERN 17 111001101010001 SECTOR PATTERN 18 100101100110010 SECTOR PATTERN 19 100110011001001 SECTOR PATTERN 20 010101011011010 SECTOR PATTERN 21 010110101010101 SECTOR PATTERN 22 001010101011011 SECTOR PATTERN 23 001001010101111 SECTOR PATTERN 24 00110011110100 SECTOR PATTERN 25 0011110000111011 SECTOR PATTERN 26 010011001101101 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 100011110011100 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 29 10000000111101 SECTOR PATTERN 30 11111000000011110   | SECTOR PATTERN 4  | 1011110011000100 |
| SECTOR PATTERN 7 1100110000100111 SECTOR PATTERN 8 11011010101000 SECTOR PATTERN 9 1101010101001001 SECTOR PATTERN 10 1010010110101010 SECTOR PATTERN 11 101001001001011 SECTOR PATTERN 12 0110011001101100 SECTOR PATTERN 13 011010011001101 SECTOR PATTERN 14 00011001101101 SECTOR PATTERN 15 0001011010001111 SECTOR PATTERN 16 1110100101110000 SECTOR PATTERN 17 1110011010010001 SECTOR PATTERN 18 100101100110010 SECTOR PATTERN 19 100110011010101 SECTOR PATTERN 20 0101010110110100 SECTOR PATTERN 21 010110101010101 SECTOR PATTERN 22 001010101010101 SECTOR PATTERN 23 001001010101011 SECTOR PATTERN 24 001100111101000 SECTOR PATTERN 25 0011110000111001 SECTOR PATTERN 26 010011001110110 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 100011101011000 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 29 10000000111101 SECTOR PATTERN 29 10000000111101 SECTOR PATTERN 30 11111011111111111111111111111111111   | SECTOR PATTERN 5  | 1011001100100101 |
| SECTOR PATTERN 8 11011010101000 SECTOR PATTERN 9 110101010101001 SECTOR PATTERN 10 1010010110101010 SECTOR PATTERN 11 1010101001001011 SECTOR PATTERN 12 0110011001101100 SECTOR PATTERN 13 011010011001101 SECTOR PATTERN 14 0001100101101110 SECTOR PATTERN 15 0001011010001111 SECTOR PATTERN 16 1110100101110000 SECTOR PATTERN 17 111001101001001 SECTOR PATTERN 18 100101100110010 SECTOR PATTERN 19 100110011011010 SECTOR PATTERN 20 010101011011010 SECTOR PATTERN 21 01011010101011 SECTOR PATTERN 22 00101010101011 SECTOR PATTERN 23 001001010101011 SECTOR PATTERN 24 00110011110100 SECTOR PATTERN 25 001111000011101 SECTOR PATTERN 26 01001101101101 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 100011110011100 SECTOR PATTERN 29 100000001111111 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 30 11111000000011110  | SECTOR PATTERN 6  | 1100001111000110 |
| SECTOR PATTERN 9         110101010101001001           SECTOR PATTERN 10         101001011010101010           SECTOR PATTERN 11         1010101001001011           SECTOR PATTERN 12         01100110011001101           SECTOR PATTERN 13         0110100110001101           SECTOR PATTERN 14         00011001011010111           SECTOR PATTERN 15         0001011010001111           SECTOR PATTERN 16         11101001011010000           SECTOR PATTERN 17         1110011010010010           SECTOR PATTERN 18         10010110011001010           SECTOR PATTERN 19         10011001100100101           SECTOR PATTERN 20         010101010101010101           SECTOR PATTERN 21         010101010101010101           SECTOR PATTERN 22         00101010101010101           SECTOR PATTERN 23         001001010101010101           SECTOR PATTERN 24         00110011100101010           SECTOR PATTERN 25         0011110000111001           SECTOR PATTERN 27         01000011001101101           SECTOR PATTERN 28         1000111000111001           SECTOR PATTERN 30         11110000000011110           SECTOR PATTERN 31         11111111111111111111111  | SECTOR PATTERN 7  | 1100110000100111 |
| SECTOR PATTERN 10 10100101101010 SECTOR PATTERN 11 1010101001001011 SECTOR PATTERN 12 0110011001101100 SECTOR PATTERN 13 011010011001101 SECTOR PATTERN 14 0001100101101110 SECTOR PATTERN 15 0001011010001111 SECTOR PATTERN 16 1110100101110000 SECTOR PATTERN 17 111001101001001 SECTOR PATTERN 18 100101100110010 SECTOR PATTERN 19 10011001100101 SECTOR PATTERN 20 010101011011010 SECTOR PATTERN 21 010110101010101 SECTOR PATTERN 22 0010101010110110 SECTOR PATTERN 23 001001010101111 SECTOR PATTERN 24 00110011101000 SECTOR PATTERN 25 0011110000111001 SECTOR PATTERN 26 01001100110101 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 10001111001 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 29 10000000111101 SECTOR PATTERN 30 1111000000011101  | SECTOR PATTERN 8  | 1101101010101000 |
| SECTOR PATTERN 11 1010101001001011 SECTOR PATTERN 12 0110011001101100 SECTOR PATTERN 13 0110100110001101 SECTOR PATTERN 14 0001100101101110 SECTOR PATTERN 15 0001011010001111 SECTOR PATTERN 16 1110100101110000 SECTOR PATTERN 17 1110011010010001 SECTOR PATTERN 18 100101100110010 SECTOR PATTERN 19 100110011001011 SECTOR PATTERN 20 010101011011010 SECTOR PATTERN 21 010110101010101 SECTOR PATTERN 22 0010101010101101 SECTOR PATTERN 23 001001010101111 SECTOR PATTERN 24 001100111101100 SECTOR PATTERN 25 001111000011101 SECTOR PATTERN 26 010011001101101 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 100011100111010 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 30 1111000000011110  | SECTOR PATTERN 9  | 1101010101001001 |
| SECTOR PATTERN 12 011001100110100 SECTOR PATTERN 13 0110100110001101 SECTOR PATTERN 14 0001100101101110 SECTOR PATTERN 15 0001011010001111 SECTOR PATTERN 16 1110100101110000 SECTOR PATTERN 17 111001101001001 SECTOR PATTERN 18 100101100110010 SECTOR PATTERN 19 100110011001011 SECTOR PATTERN 20 010101011011010 SECTOR PATTERN 21 010110101010101 SECTOR PATTERN 22 001010101010110 SECTOR PATTERN 23 00100101010111 SECTOR PATTERN 24 00110011110100 SECTOR PATTERN 25 0011110000111001 SECTOR PATTERN 26 010011001101101 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 100011110011100 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 30 1111000000011110   | SECTOR PATTERN 10 | 1010010110101010 |
| SECTOR PATTERN 13 0110100110001101  SECTOR PATTERN 14 0001100101101110  SECTOR PATTERN 15 0001011010001111  SECTOR PATTERN 16 1110100101110000  SECTOR PATTERN 17 1110011010010001  SECTOR PATTERN 18 100101100110010  SECTOR PATTERN 19 1001100110010011  SECTOR PATTERN 20 0101010110110100  SECTOR PATTERN 21 01011010010101  SECTOR PATTERN 22 0010101010101101  SECTOR PATTERN 23 001001010101111  SECTOR PATTERN 24 001100111101100  SECTOR PATTERN 25 0011110000111001  SECTOR PATTERN 26 01001100111011  SECTOR PATTERN 27 0100001100111011  SECTOR PATTERN 28 10001111000111001  SECTOR PATTERN 29 1000000011111011  SECTOR PATTERN 29 1000000001111101  SECTOR PATTERN 30 11111011111111111111111111111111111  | SECTOR PATTERN 11 | 1010101001001011 |
| SECTOR PATTERN 14 000110010110110  SECTOR PATTERN 15 0001011010001111  SECTOR PATTERN 16 1110100101110000  SECTOR PATTERN 17 1110011010010001  SECTOR PATTERN 18 100101100110010  SECTOR PATTERN 19 1001100110010011  SECTOR PATTERN 20 0101010110110100  SECTOR PATTERN 21 0101101001010101  SECTOR PATTERN 22 001010101010101  SECTOR PATTERN 23 001001010101111  SECTOR PATTERN 24 0011001111011000  SECTOR PATTERN 25 0011110000111001  SECTOR PATTERN 26 010011001101101  SECTOR PATTERN 27 0100001100111011  SECTOR PATTERN 28 100011100111001  SECTOR PATTERN 29 1000000011111101  SECTOR PATTERN 29 1000000001111101  SECTOR PATTERN 30 11110000000111101  SECTOR PATTERN 31 11111111111111111   | SECTOR PATTERN 12 | 0110011001101100 |
| SECTOR PATTERN 15 0001011010001111  SECTOR PATTERN 16 1110100101110000  SECTOR PATTERN 17 1110011010010001  SECTOR PATTERN 18 100101100110010  SECTOR PATTERN 19 1001100110010011  SECTOR PATTERN 20 0101010110110100  SECTOR PATTERN 21 0101101001010101  SECTOR PATTERN 22 0010101010101101  SECTOR PATTERN 23 00100101010111  SECTOR PATTERN 24 00110011110100  SECTOR PATTERN 25 0011110000111001  SECTOR PATTERN 26 01001100110101  SECTOR PATTERN 27 010000110011101  SECTOR PATTERN 28 10001110011100  SECTOR PATTERN 29 100000001111101  SECTOR PATTERN 30 11110000000111101  SECTOR PATTERN 30 11111111111111111  | SECTOR PATTERN 13 | 0110100110001101 |
| SECTOR PATTERN 16 1110100101110000  SECTOR PATTERN 17 1110011010010001  SECTOR PATTERN 18 1001011001110010  SECTOR PATTERN 19 1001100110010011  SECTOR PATTERN 20 0101010110110100  SECTOR PATTERN 21 0101101001010101  SECTOR PATTERN 22 0010101010101101  SECTOR PATTERN 23 0010010101010111  SECTOR PATTERN 24 001100111101100  SECTOR PATTERN 25 0011110000111001  SECTOR PATTERN 26 010011001101101  SECTOR PATTERN 27 0100001100111011  SECTOR PATTERN 28 1000111100011100  SECTOR PATTERN 29 100000001111101  SECTOR PATTERN 30 11110000000111101  SECTOR PATTERN 30 11111011111111111111111111111111111  | SECTOR PATTERN 14 | 0001100101101110 |
| SECTOR PATTERN 17 1110011010010011 SECTOR PATTERN 18 1001011001110010 SECTOR PATTERN 19 1001100110010011 SECTOR PATTERN 20 0101010110110100 SECTOR PATTERN 21 0101101001010101 SECTOR PATTERN 22 0010101010101101 SECTOR PATTERN 23 0010010101010111 SECTOR PATTERN 24 001100111101100 SECTOR PATTERN 25 0011110000111001 SECTOR PATTERN 26 010011001101101 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 10001110011100 SECTOR PATTERN 29 1000000011111101 SECTOR PATTERN 30 1111000000011110  | SECTOR PATTERN 15 | 0001011010001111 |
| SECTOR PATTERN 18 1001011001110010  SECTOR PATTERN 19 100110011001011  SECTOR PATTERN 20 0101010110110100  SECTOR PATTERN 21 0101101001010101  SECTOR PATTERN 22 0010101010101101  SECTOR PATTERN 23 0010010101010111  SECTOR PATTERN 24 0011001111011000  SECTOR PATTERN 25 0011110000111001  SECTOR PATTERN 26 0100110011011010  SECTOR PATTERN 27 0100001100111011  SECTOR PATTERN 28 1000111100011100  SECTOR PATTERN 29 1000000011111101  SECTOR PATTERN 30 1111000000011110  SECTOR PATTERN 31 111111111111111   | SECTOR PATTERN 16 | 1110100101110000 |
| SECTOR PATTERN 19 1001100110010011  SECTOR PATTERN 20 0101010110110100  SECTOR PATTERN 21 0101101001010101  SECTOR PATTERN 22 0010101010101101  SECTOR PATTERN 23 0010010101010111  SECTOR PATTERN 24 0011001111011000  SECTOR PATTERN 25 0011110000111001  SECTOR PATTERN 26 0100110011011010  SECTOR PATTERN 27 0100001100111011  SECTOR PATTERN 28 1000111100011100  SECTOR PATTERN 29 1000000011111101  SECTOR PATTERN 30 1111000000011110  SECTOR PATTERN 31 11111111111111   | SECTOR PATTERN 17 | 1110011010010001 |
| SECTOR PATTERN 20 0101010110110100 SECTOR PATTERN 21 0101101001010101 SECTOR PATTERN 22 0010101010101101 SECTOR PATTERN 23 0010010101010111 SECTOR PATTERN 24 0011001111011000 SECTOR PATTERN 25 0011110000111001 SECTOR PATTERN 26 0100110011011010 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 10001110011100 SECTOR PATTERN 29 1000000011111101 SECTOR PATTERN 30 1111000000011110 SECTOR PATTERN 31 11111111111111  | SECTOR PATTERN 18 | 1001011001110010 |
| SECTOR PATTERN 21 0101101001010101  SECTOR PATTERN 22 0010101010110110  SECTOR PATTERN 23 0010010101010111  SECTOR PATTERN 24 0011001111011000  SECTOR PATTERN 25 0011110000111001  SECTOR PATTERN 26 0100110011011010  SECTOR PATTERN 27 0100001100111011  SECTOR PATTERN 28 1000111100011100  SECTOR PATTERN 29 100000001111101  SECTOR PATTERN 30 1111000000011110  SECTOR PATTERN 31 11111111111111  | SECTOR PATTERN 19 | 1001100110010011 |
| SECTOR PATTERN 22 0010101010110110  SECTOR PATTERN 23 0010010101010111  SECTOR PATTERN 24 0011001111011000  SECTOR PATTERN 25 0011110000111001  SECTOR PATTERN 26 0100110011011010  SECTOR PATTERN 27 0100001100111011  SECTOR PATTERN 28 1000111100011100  SECTOR PATTERN 29 1000000011111101  SECTOR PATTERN 30 1111000000011110  SECTOR PATTERN 31 111111111111111  | SECTOR PATTERN 20 | 0101010110110100 |
| SECTOR PATTERN 23 001001010101111 SECTOR PATTERN 24 001100111101000 SECTOR PATTERN 25 0011110000111001 SECTOR PATTERN 26 0100110011011010 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 1000111100011100 SECTOR PATTERN 29 1000000011111101 SECTOR PATTERN 30 1111000000011110 SECTOR PATTERN 31 11111111111111   | SECTOR PATTERN 21 | 0101101001010101 |
| SECTOR PATTERN 24 0011001111011000 SECTOR PATTERN 25 0011110000111001 SECTOR PATTERN 26 0100110011011010 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 1000111100011100 SECTOR PATTERN 29 1000000011111101 SECTOR PATTERN 30 1111000000011110 SECTOR PATTERN 31 11111111111111  | SECTOR PATTERN 22 | 0010101010110110 |
| SECTOR PATTERN 25 0011110000111001 SECTOR PATTERN 26 0100110011011010 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 1000111100011100 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 30 1111000000011110 SECTOR PATTERN 31 11111111111111  | SECTOR PATTERN 23 | 001001010101111  |
| SECTOR PATTERN 26 0100110011011010 SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 1000111100011100 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 30 1111000000011110 SECTOR PATTERN 31 11111111111111   | SECTOR PATTERN 24 | 0011001111011000 |
| SECTOR PATTERN 27 0100001100111011 SECTOR PATTERN 28 1000111100011100 SECTOR PATTERN 29 100000001111101 SECTOR PATTERN 30 1111000000011110 SECTOR PATTERN 31 11111111111111  | SECTOR PATTERN 25 | 0011110000111001 |
| SECTOR PATTERN 28 1000111100011100 SECTOR PATTERN 29 1000000011111101 SECTOR PATTERN 30 1111000000011110 SECTOR PATTERN 31 11111111111111  | SECTOR PATTERN 26 | 0100110011011010 |
| SECTOR PATTERN 29 1000000011111101<br>SECTOR PATTERN 30 1111000000011110<br>SECTOR PATTERN 31 11111111111111   | SECTOR PATTERN 27 | 0100001100111011 |
| SECTOR PATTERN 30 1111000000011110<br>SECTOR PATTERN 31 11111111111111   | SECTOR PATTERN 28 | 1000111100011100 |
| SECTOR PATTERN 31 1111111111111111   | SECTOR PATTERN 29 | 1000000011111101 |
|  | SECTOR PATTERN 30 | 1111000000011110 |
| L SECTOR DATTERN 20 LOCOCOCOCOCOCOCO   | SECTOR PATTERN 31 | 1111111111111111 |
| SECTOR PATTERN 32   0000000000000000000000000000000000   | SECTOR PATTERN 32 | 000000000000000  |

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| SF15 | - | SF33 | 0 | SF51 | - | SF69 | 0 | SF86 | - | SF103             | 0 | SF120             | - | SF137   | 0  | SF154                | - |
|------|---|------|---|------|---|------|---|------|---|-------------------|---|-------------------|---|---------|----|----------------------|---|
| SF14 | 0 | SF32 | 1 | SF50 | - | SF68 | 0 | SF85 | 0 | SF102             | - | SF119             | - | SF136   | 0  | SF153                | 0 |
| SF13 | 0 | SF31 | 0 | SF49 | 0 | SF67 | - | SF84 | 1 | SF100 SF101 SF102 | 1 | 7SF118            | - | SF135   | 0  | SF151SF152SF153      | 0 |
| SF12 | 0 | SF30 | 0 | SF48 | 0 | SF66 | 0 | SF83 | 0 | SF100             | 0 | SF11              | 0 | SF134   | 1  | SF151                | - |
| SF11 | 0 | SF29 | 0 | SF47 | 0 | SF65 | 0 | SF82 | 0 | SF99              | 0 | 5SF116            | 0 | SF133   | 0  | SF150                | 0 |
| SF10 | - | SF28 | 0 | SF46 | - | SF64 | 0 | SF81 | - | SF98              | 0 | SF11              | - | SF132   | -  | SF146SF147SF148SF149 | 0 |
| SF9  | - | SF27 | 0 | SF45 | 1 | SF63 | - | SF80 | 0 | SF97              | 1 | SF114             | 0 | SF131   | 0  | SF148                | 1 |
| SF8  | - | SF26 | 0 | SF44 | - | SF62 | - | SF79 | 0 | SF96              | 1 | 2 SF113           | 0 | SF130   | 1  | SF147                | 0 |
| SF7  | - | SF25 | 1 | SF43 | 0 | SF61 | 0 | SF78 | - | SF95              | 1 | 1SF112            | 0 | SF129   | 0  | SF146                | 1 |
| SF6  | - | SF24 | - | SF42 | 0 | SF60 | 0 | SF77 | - | SF94              | - | SF11              | 0 | SF128   | -  | SF144 SF145          | 0 |
| SF5  | - | SF23 | - | SF41 | 0 | SF59 | - | SF76 | 0 | SF93              | 0 | SF110             | - | SF127   | 0  | SF144                | 1 |
| SF4  | - | SF22 | - | SF40 | 0 | SF58 | - | SF75 | 0 | SF92              | 0 | 108SF109          | - | SF126   | ,- | 142SF143             | 0 |
| SF3  | 0 | SF21 | - | SF39 | _ | SF57 | - | SF74 | - | SF91              | 0 | SF108             | 0 | 125     | -  | SF                   | - |
| SF2  | 0 | SF20 | 1 | SF38 | _ | SF56 | - | SF73 | - | SF90              | 0 | SF105SF106SF107SF | 0 | SF124SF | 0  | SF140SF141           | 0 |
| SF1  | 0 | SF19 | 1 | SF37 | - | SF55 | 0 | SF72 | 0 | SF89              | - | SF106             | _ | 22SF123 | -  | SF140                | - |
| SFO  | 0 | SF18 | 0 | SF36 | 0 | SF54 | - | SF71 | - | SF88              | 1 | SF105             | - | SF122   | -  | SF139                | 1 |

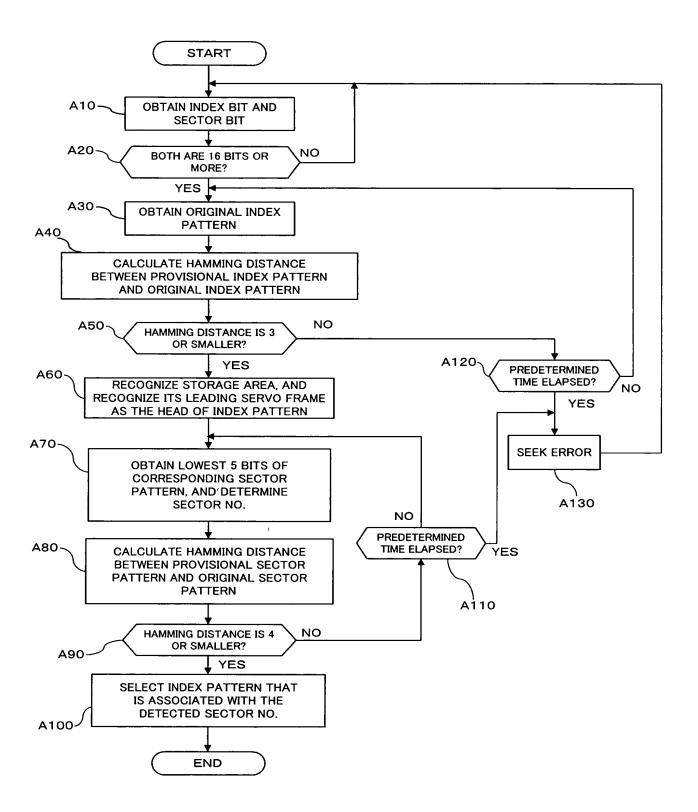






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FIG. 11



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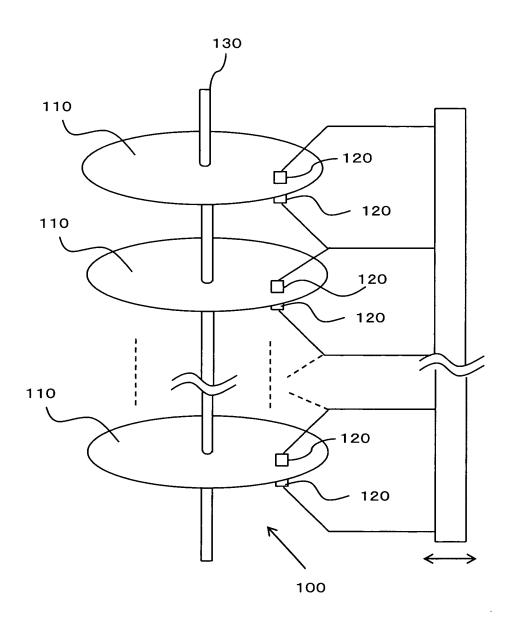
## FIG. 12

| SECTOR PATTERN         | DECIMAL NUMBER |
|------------------------|----------------|
| (BINARY NUMBER SYSTEM) | SYSTEM         |
| 00000000000000         | 0              |
| 000000011111111        | 255            |
| 0000111100001111       | 3855           |
| 0000111111110000       | 4080           |
| 0011001100110011       | 13107          |
| 0011001111001100       | 13260          |
| 0011110000111100       | 15420          |
| 0011110011000011       | 15555          |
| 01010101010101         | 21845          |
| 01010101101010         | 21930          |
| 0101101001011010       | 23130          |
| 0101101010100101       | 23205          |
| 0110011001100110       | 26214          |
| 0110011010011001       | 26265          |
| 0110100101101001       | 26985          |
| 0110100110010110       | 27030          |
| 1001011001101001       | 38505          |
| 1001011010010110       | 38550          |
| 1001100101100110       | 39270          |
| 100110011001           | 39321          |
| 1010010101011010       | 42330          |
| 1010010110100101       | 42405          |
| 1010101001010101       | 43605          |
| 10101010101010         | 43690          |
| 1100001100111100       | 49980          |
| 1100001111000011       | 50115          |
| 1100110000110011       | 52275          |
| 1100110011001100       | 52428          |
| 1111000000001111       | 61455          |
| 1111000011110000       | 61680          |
| 1111111100000000       | 65280          |
| 1111111111111111       | 65535          |

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FIG. 13 PRIOR ART



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